Ejercicio 4

$IC = \bar{x} \pm z\left[\frac{s}{\sqrt{n}}\right]$

Datos

$= 100 \quad \bar{x} = 30$

$= 30 \pm 1.645\left[\frac{12}{\sqrt{100}}\right]$

$= 30 \pm 1.645\left(\frac{12}{10}\right)$

$= 30 \pm 1.645\ (1.2)$

$= 30 + 1.974 = 31.974$

$= 30 - 1.974 = 28.026$

$$IC = \bar{x} \pm \bar{x}2 \pm z \sqrt{\frac{J_1^2}{n1} + \frac{J_2^2}{n2}}$$

$$IC = 1051 - 1004 \pm 1.645 \sqrt{\frac{(90)^2}{40} + \frac{(78)^2}{35}}$$

$$IC = 42 \pm 1.645 \sqrt{202.5 + 173.82}$$

$$IC = 42 \pm 1.645 (19.398)$$

$$IC = 42 - 31.909 = 10.091$$
$$IC = 42 + 31.909 = 73.909$$

Datos

$z = 1.645$

$x_1 = 1051$ $\quad$ $x_2 = 1004$

$\bar{J}_1 = 90$ $\quad$ $\bar{J}_2 = 78$

$n_1 = 40$ $\quad$ $n_2 = 35$

$$IC = P \pm z \sqrt{\frac{P(1-P)}{n}}$$

$$IC = 0.6 \pm 1.645 \sqrt{\frac{(0.6)(0.4)}{500}}$$

$$IC = 0.6 \pm 1.645 \sqrt{0.00048}$$

$$IC = 0.6 \pm 1.645 (0.021) = 0.0345$$

$$IC = 0.6 + 0.0345 = 0.6345 \times 100 = 63.45\%$$
$$IC = 0.6 - 0.0345 = 0.5655 \times 100 = 56.55\%$$

Datos

90% = 1.645

n = 500

$P = \frac{300}{500} = 0.6$

Ejercicio 3